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STATE OF BRUNEI

Annual Report on the Medical Department for the year 1934

BY

W. G. EVANS,
Medical Officer



SINGAPORE.

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ANNUAL REPORT ON THE MEDICAL DEPARTMENT, BRUNEI, FOR THE YEAR 1934

By W. G. EVANS—*Medical Officer.*

I.—GENERAL

1. The State of Brunei comprises an area of about 2,500 square miles with a coast line of about 100 miles and a population of over 30,000 (*see Appendix IV Table 1*).

2. There are two main centres of population, Brunei Town which is the seat of Government, and Kuala Belait, the centre of the activities of the British Malayan Petroleum Company in Brunei.

3. These places are about 70 miles apart and transport between them is by car on road and beach, in fine weather taking about 3 hours and in bad weather becoming at times impossible. Access to other parts of the State from Brunei town is largely by motor-launch but large areas are undeveloped jungle and inaccessible except by perahu (native dug-out). A proportion of the population is found in small clearings in such jungle areas but exact figures are not available.

II.—ADMINISTRATION OF THE MEDICAL DEPARTMENT

(a) STAFF

4. The whole Medical and Health administration of the State is controlled by one officer who is invariably a member of the Malayan Medical Service seconded to Brunei.

5. E. W. MARTINDELL was Medical Officer until May 1st since which date the post has been held by W. G. EVANS.

6. In Kuala Belait the British Malayan Petroleum Company employs a Medical Officer whose services are available to Government by an agreement with the Company.

7. The full establishment of the Department in 1934 is given in *Appendix I*.

8. In addition to this, a Sanitary Inspector holding the diploma of the Royal Sanitary Institute is on the establishment of the Assistant Resident at Kuala Belait.

9. *Death.*—We record with regret the death on December 7th, of typhoid fever, of ABDUL KHAN BIN NOORSAH, Dresser Grade I (Tutong). He had been in the service of the Government of Brunei for 18 years, 17 of which were spent in the Medical Department.

(b) ORDINANCE AFFECTING PUBLIC HEALTH

10. The Quarantine and Prevention of Diseases Enactment was completed during the year and came into force on January 1st, 1935.

(c) FINANCIAL

11. The revenue collected by the Department was \$1,517.94 compared with \$1,205.76 for 1933.

12. Expenditure was \$37,700.02 compared with \$29,570.58 in 1933.

13. Expenditure by other Departments on Medical and Health works was \$12,835.86 making a total State expenditure on Medical and Health matters of \$50,535.88. This was 9% of the total State expenditure. Details are given in Appendix II.

III.—MATERNITY AND CHILD WELFARE

14. A Maternity and Child Welfare service has been maintained with one fully qualified nurse and one locally trained midwife.

15. Four hundred and thirty-six Maternity cases were attended in their own homes with only one death (from severe post partum haemorrhage).

16. There were only 2 cases of puerperal fever amongst the 436 cases attended.

17. In addition to the Maternity cases, 1,624 other cases were seen in the clinic. Details are given in Appendix III.

IV.—PUBLIC HEALTH

(a) GENERAL

18. The scattered nature of the population and the inaccessibility of large parts of the State render Public Health measures difficult if not impossible except in the main centres of population.

19. Ascariasis is so common as to be the rule amongst children. The stools of all school children are examined annually for ova and infected children are treated.

20. Ankylostomiasis is much less common. Figures are given in Appendix VI.

21. There was no major epidemic of infectious disease during the year.

22. There was a severe outbreak of Beri-Beri towards the end of the year, due presumably to the poor local rice harvest.

23. The Beri-Beri was particularly severe on Labu Estate. At one time nearly half the labour force was incapacitated. Curative and preventive measures entirely cleared this up before the end of the year.

24. Less than 1% of deaths were certified by Medical Practitioners but since even a number of these were certified from scanty data, the figures for causes of death (given in Appendix IV Table 4) are unreliable.

(b) MALARIA

25. Malaria is fairly common throughout the State but is not bad in the main centres where anti-malarial measures are taken.

26. Four hundred and twenty-one Blood films were examined in Brunei Hospital with 37 positive. Laboratory returns are shown in Appendix V. Unfortunately the Tutong Laboratory records were lost.

27. *Spleen Rates.*—The highest spleen rate amongst school children was 25.5% at Muara and the lowest nil at Lubok Pulau and Bangar. The rate for the whole State amongst school children was 4.3%. Details are given in Appendix VI.

28. Anti-Malarial work has been carried out at Brunei, Kuala Belait, and Muara. The work at Brunei has been largely drainage (both subsoil and surface) and oiling. At Kuala Belait the anti-malarial work is in the hands of the Assistant Resident who acts on the advice of the Oil Company's Medical Officer.

29. The following Anopheline mosquitoes were identified at Brunei (in order of frequency) A. kochi, A. barbirostris, A. tessalatus, A. sundaeicus and A. leucosphyrus. At Kuala Belait they were A. umbrosus, A. tessalatus, and A. separatus.

30. No other mosquito borne diseases were seen except a few cases of dengue.

(c) LEPROSY

31. One advanced case of leprosy has reached a stage of quiescence following treatment and has been settled on a piece of land 10 miles out from Brunei where he is able to live in isolation. He is visited regularly and is able to occupy himself growing vegetables, keeping chickens, etc.

32. One very early case, a well-to-do Chinese was transferred at his own request to Sungei Buloh Leper Settlement, Kuala Lumpur, where he is progressing favourably.

33. One advanced case is receiving treatment in isolation at the Brunei Hospital and is progressing exceptionally well.

(d) MENTAL DISORDERS

34. There is no mental hospital in the State. Selected cases are sent to the Singapore Mental Hospital, others are treated in the Brunei Hospital. No cases were sent to Singapore in 1934 and there remained 8 Brunei lunatics in the Singapore Mental Hospital on December 31st. The cost to the Brunei Government of maintaining lunatics in Singapore in 1934 was \$984.30.

(e) YAWS

35. Yaws is fairly common throughout the State, 137 cases being seen during the year. The dramatic results of its treatment by Western Methods have done much to bring European medicine into favour with the natives of Brunei.

(f) VENEREAL DISEASES

36. Syphilis is very rarely seen, only 2 cases being recorded in 1934.

37. Gonorrhœa is very common but appears to be a very mild disease amongst the native population, responding rapidly to treatment. It is very much more common than the figures in the appendices show.

(g) DYSENTERIES

38. The dysenteries are rare, 16 cases of bacillary dysentery and one case of amoebic were seen during the year.

(h) VITAL STATISTICS

39. The estimated population on December 31st, was 32,971.

40. Births totalled 1,306 giving a birth rate of 39.61 per mille compared with 42.93 for 1933.

41. Deaths totalled 1,237 giving a crude death rate of 37.51 per mille compared with 26.38 for 1933. Details are given in Appendix IV.

42. Table 7 Appendix IV shows that the increase in the number of deaths registered has taken place only in those districts where registration is easy and a registry near at hand, *viz.* Brunei, Tutong and district (Tanjong Maya and Penyatang) Temburong (including Pandaruan), Labu and Muara.

This would suggest that the increased mortality in 1934 is in part only apparent and caused by increased registration. It is certain that even now not all deaths are registered.

43. Table 8 Appendix IV shows the deaths registered by months compared with 1933.

V.—HOSPITAL AND DISPENSARIES

44. The following new buildings were erected during the year—

- (a) A block of two wards, each for 9 beds at the Brunei Hospital.
- (b) A hospital of 8 beds at Temburong.

45. Thus the Government now maintains:—

- (a) A well equipped hospital of about 35 beds at Brunei.
- (b) A small hospital of 8 beds at Temburong.
- (c) A small hospital of 6 beds at Tutong.

46. The dresser in charge of Tutong Hospital was a Grade I man with many years experience and with his centre at Tutong he travelled the State from Belait to Barakas, penetrating into jungle areas. Owing to the difficult and scattered nature of his work his records are scanty and his lamented death in December unfortunately precludes the issue of a separate report on this work which it was hoped would have been very interesting and informative.

47. The Oil Company at Kuala Belait maintained a very well equipped hospital in charge of a Medical Officer.

48. By agreement with the Company all the services of this hospital and the Company's medical staff are available to Government. The cost to Government in 1934 was \$3,323.

49. Unfortunately there are no radiological facilities whatsoever in the State. It is interesting and astonishing to note how well one can manage without them.

50. The nearest X-ray apparatus is at Miri, a day's journey from Brunei and a few cases were sent there for examination during the year.

51. The admissions to the Government Hospitals in the State are shown in Appendix VII.

52. A list of surgical operations is shown in Appendix VIII. There were no deaths following operation.

53. The Brunei Malay is exceptionally averse from entering hospital as an in-patient and the out-patient departments are the busiest parts of the Medical Department. Details are shown in Appendix IX.

54. Gadong Estate maintained its own dispensary with a qualified dresser.

55. Labu Estate maintained a small hospital and dispensary with a qualified dresser.

56. Other employers of labour made use of the Government hospitals at moderate rates of charges.

VI.—METEOROLOGY

57. There is a definite wet season about November, December, January, February, March with a minor wet season about the middle of the year.

58. The wettest month in Brunei town in 1934 was January with 23.36 inches and the driest May with 5.38 inches.

59. The driest district from which records are available was Kuala Belait with a total of 133.34 inches and the wettest Labu with 248.93. Details are shown in Appendix X.

W. G. EVANS,
Medical Officer.

APPENDIX I

TOTAL STAFF OF THE MEDICAL AND HEALTH DEPARTMENT DURING 1934

- (1) Medical Officer.
- (2) Dresser Grade I.
- (3) Dresser Grade III Senior.
- (4) Dresser Grade III Junior.
- (5) Probationer Dresser.
- (6) Probationer Dresser.
- (7) Apprentice Clerk.
- (8) Health Nurse.
- (9) Probationary Midwife.
- (10) Sanitary Inspector.
- (11) Market Inspector.
- (12) Dispensary Attendant.
- (13) Attendant.
- (14) Attendant.
- (15) Female Attendant.
- (16) Cook.
- (17) Assistant Cook.
- (18) Gardener.
- (19) Dresser Grade I. (Tutong Hospital).
- (20) Attendant ,,
- (21) Dresser Grade II. (Temburong Hospital).
- (22) Attendant ,,
- (23) Cook ,,

Also a number of coolies and toties.

APPENDIX II

MEDICAL DEPARTMENT 1934

		<i>Whole State</i>	<i>Medical Dept.</i>
		\$ c.	\$ c.
Total Revenue	..	645,020 79	1,517 94
Total Expenditure	..	545,020 74	37,700 02

REVENUE 1934

		\$ c.
Sale of Medicines and Hospital charges	..	1,517 94

EXPENDITURE 1934

Personal Emoluments	..	..	..	18,333 50
Transport (various)	..	..	..	1,477 62
Medicines and Instruments	..	..	..	3,894 59
Hospital Diets	..	..	..	1,730 95
Clothing and Laundry	..	..	..	560 83
Miscellaneous	..	..	..	198 73
Maintenance of Lunatics	..	..	..	984 30
Conservancy	..	..	..	2,967 74
Contribution to Belait Medical Services	..	..	..	3,323 00
Special Equipment	..	..	..	2,000 00
Health Work	..	..	..	1,932 90
Hospital Furniture	..	..	..	295 86
				37,700 02
Other departmental votes	..	..	..	12,835 86
			Total	.. \$50,535 88

APPENDIX III

TABLE 1

*Annual return of the Women and Child-Welfare Clinic
for the year 1934*

<i>Diseases</i>	<i>No. of Cases</i>
Infectious Disease:	
(a) Malaria (all forms)	.. .. .. 26
(b) Measles	.. .. .. 5
(c) Dysentery—	
(1) Bacillary	.. .. .. 2
(d) Pneumonia (all forms)	.. .. .. 6

APPENDIX III—continued

					No. of Cases
Venereal Disease:					
(a) Gonorrhœa	..	..	..	..	7
(b) Syphilis (all forms)	..	..	..	..	1
Helminthic Infections:					
(a) Ascariasis	..	..	..	..	325
(b) Ankylostomiasis	..	..	..	..	2
(c) Other	..	..	..	..	18
Respiratory Diseases	..	..	..	..	175
Circulatory Disease	..	..	..	..	1
Gastro-Intestinal Disease:					
(a) All forms	..	..	..	..	301
Genito Urinary (non-venereal)	..	..	..	..	7
Diseases of Women:					
(a) Amenorrhœa	..	..	..	..	5
(b) Dysmenorrhœa	..	..	..	..	23
(c) Menorrhagia	..	..	..	..	5
(d) Abortion	..	..	..	..	4
(e) Puerperal Infection (all forms)	..	..	..	..	3
(f) Other	..	..	..	..	16
Violence (all forms)	..	..	..	..	29
Diseases of skins etc., etc.	..	..	..	..	663
					<hr/> 1,624 <hr/>

TABLE 2
Record of Maternity Cases for the year 1934

TABLE OF NATIONALITY

Brunei-Malays	..	..	..	..	399
Chinese	..	..	..	..	27
Kedayans	..	..	..	..	3
Dusuns	..	..	..	..	1
Tutongs	..	..	..	..	1
Other Malays	..	..	..	..	5
					<hr/> Total .. 436 <hr/>

APPENDIX III—continued

TABLE 3

Abnormal Maternity cases attended by the Maternity Department

Still Births	..	..	..	..	..	17
(1) Full term	..	..	..	..	..	9
(2) Premature	..	..	..	..	..	8
Premature babies born in Brunei	..	..	..	..	..	25
Premature babies born alive	..	..	..	..	..	17
Premature babies died	..	..	..	..	..	9
Premature babies alive and doing well			..	..	..	8
Twins born in Brunei, pairs	..	..	..	..	..	4
Twins alive pairs	..	..	..	..	..	3
Twins died pairs	..	..	..	..	..	1
Breech (L. S. A.)	..	..	..	..	..	2
Ante Partum Hæmorrhage	..	..	..	..	..	2
Post Partum Hæmorrhage	..	..	..	..	..	6
Post Partum Hæmorrhage death	..	..	..	..	..	1
Forceps-case	..	..	..	..	..	1
Malformation of Baby (all forms)	..	..	..	..	..	6

APPENDIX IV

VITAL STATISTICS

TABLE 1

Estimated population with birth and death rates for 1934

Year	Population	Births	Deaths	Birth-rate per mille	Death-rate per mille
1932	30,595	1,306	873	42·69	28·54
1933	32,869	1,411	867	42·93	26·38
1934	32,971	1,306	1,237	39·61	37·51

TABLE 2

Births registered according to nationalities

Malays	Chinese	Dayaks	Dusuns	Europeans	Eurasians	Indians	Javanese	Kedayans	Muruts	Tutongs	Others	Total
700	138	24	77	..	2	5	10	187	23	119	21	1,306

APPENDIX IV—continued

TABLE 3

Deaths grouped according to age, sex, and nationality

Deaths by Age groups				Sex	Europeans	Eurasians	Chinese	Malays	Indians	Others	Total
				M.	...	...	3	34	...	18	55
				F.	...	...	4	26	...	18	48
0	...	...	...	{	M.	...	1	3	34	...	18
				{	F.	...	...	5	25	...	19
4	Weeks	...	...	{	M.	...	...	3	34	...	8
				{	F.	...	...	5	25	...	19
3	Months	...	...	{	M.	...	...	5	79	...	23
				{	F.	...	...	7	48	...	22
6	"	...	...	{	M.	...	...	10	25	...	8
				{	F.	...	...	13	14	...	12
1	Year	...	...	{	M.	...	...	...	33	...	26
				{	F.	...	...	3	46	...	30
5	Years	...	...	{	M.	...	...	2	10	...	16
				{	F.	...	...	...	8	...	9
10	"	...	...	{	M.	...	...	1	11	...	6
				{	F.	...	...	...	7	...	4
15	"	...	...	{	M.	...	...	4	19	...	7
				{	F.	...	...	...	5	...	8
20	"	...	...	{	M.	...	...	2	13	...	6
				{	F.	...	...	2	13	1	5
25	"	...	...	{	M.	...	...	...	5	...	5
				{	F.	...	...	1	7	...	10
30	"	...	...	{	M.	...	...	2	9	1	15
				{	F.	...	...	2	24	...	14
35	"	...	...	{	M.	...	...	5	6	...	14
				{	F.	...	...	1	7	...	13
40	"	...	...	{	M.	...	...	3	16	...	10
				{	F.	...	...	...	11	...	10
45	"	...	...	{	M.	...	...	1	6	...	8
				{	F.	...	...	...	3	...	5
50	"	...	...	{	M.	...	...	...	12	...	9
				{	F.	...	...	...	18	...	7
55	" and over	...	...	{	M.	...	...	11	81	...	19
				{	F.	...	...	...	74	...	30
Total				M.	...	1	90	730	2	414	1,237
				F.	...						

APPENDIX IV—continued

TABLE 4

Deaths from Principal causes, 1934

Diseases		Male	Female	Total
Malaria	..	..	40	33
Enteric fever	..	..	2	—
Dysentery	..	..	17	12
Influenza	..	..	—	—
Tuberculosis of respiratory system	..	23	22	45
Other forms of Tuberculosis	..	—	2	2
Leprosy	..	..	—	—
Syphilis	..	..	—	—
Ankylostomiasis	..	..	—	—
Fever Unspecified	..	..	17	21
Cancer	..	..	1	—
Beri-Beri	..	..	25	15
Diseases of the Heart	..	..	9	4
Other diseases of Circulatory system	..	1	3	4
Bronchitis	..	..	3	2
Pneumonia (all forms)	..	16	9	25
Other diseases of Respiratory system	..	10	8	18
Diarrhoea and Enteritis	..	78	73	151
Other diseases of Digestive system	..	18	14	32
Convulsions	..	87	75	162
Diseases of Nervous System and Sense Organs	..	—	—	—
Non Venereal diseases of Genito Urinary system	..	5	7	12
Diseases of Pregnancy, Child-birth and Puerperal State	..	—	5	5
Premature Birth and diseases of early infancy	..	57	49	106
Old age and Senility	..	77	92	169
Violence (all forms)	..	9	4	13
Other Causes (including unknown)	..	149	143	292
Total deaths	..	644	593	1,237

TABLE 5

Infantile Mortality registered during each Month according to Sex, with rate per thousand Births

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Total Birth	Rate per 1,000 birth
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.
19	20	15	16	27	18	21	21	16	20	18	15	26	18	31

APPENDIX IV—continued

TABLE 6

Deaths registered as regards certification

Certified by Medical Practitioners ..	..	115
Certified by Registering Officers after death ..	..	860
Uncertified .. .. ..	..	262
	Total ..	1,237

TABLE 7

Showing the Deaths registered by Districts in the years 1933 and 1934

District			1933	1934
Brunei ..	..	..	397	673
Limau Manis ..	..	..	33	26
Sengkurong ..	..	..	47	41
Tutong ..	..	..	83	99
Tanjong Maya ..	..	..	54	68
Penyatang ..	..	..	19	36
Labi ..	..	..	13	9
Kuala Balai ..	..	..	7	6
Kuala Belait ..	..	..	83	68
Seria ..	..	..	15	9
Pangkalan Siong ..	..	..	12	9
Temburong ..	..	..	53	69
Labu ..	..	..	16	42
Pandaruan ..	..	..	4	14
Muara ..	..	..	34	70

TABLE 8

Showing Deaths registered per month in the years 1933 and 1934

Month	Deaths below the Age of one year		Total Deaths	
	1933	1934	1933	1934
January ..	.. 30	39	60	78
February ..	.. 24	31	53	79
March ..	.. 21	45	56	133
April ..	.. 19	42	59	107
May ..	.. 19	36	72	104
June ..	.. 32	33	73	86
July ..	.. 26	44	78	145
August ..	.. 33	45	88	123
September ..	.. 48	49	104	123
October ..	.. 25	56	70	123
November ..	.. 22	22	64	68
December ..	.. 35	22	91	69
	Totals ..	334	464	868
				1,237

APPENDIX V
LABORATORY RETURNS

		<i>Brunei</i>	<i>Temburong</i>	<i>Total</i>
(1) Blood:				
A. Films—				
Malaria:				
(a) Benign Tertian ..	14	—	14	
(b) Quartan ..	6	—	6	
(c) Sub-Tertian ..	17	1	18	
(d) Negative ..	384	35	419	
	Total ..	421	36	457
B. Blood Counts ..	..	10	—	10
(2) Stools:				
(1) Entamœba Hystolitica ..	2	—	2	
(2) Ankylostoma ..	24	2	26	
(3) Ascaris ..	571	29	600	
(4) Mixed A.L.O. and A.D.O. ..	13	—	13	
(5) Strongyloides ..	4	—	4	
(6) T. Trichuira ..	159	4	163	
(7) Blood and Pus ..	24	5	29	
(8) Negative ..	192	19	211	
(9) Trichomonas Hominis ..	—	1	1	
	Total ..	989	60	1,049
(3) Sputum:				
(a) Tuberculosis Bacilli ..	5	—	5	
(b) Negative ..	25	2	27	
	Total ..	30	2	32
(4) Urine:				
(a) Pus and Organisms ..	10	—	—	
(b) Casts (all forms) ..	36	—	—	
(c) Negative ..	296	—	—	
	Total ..	342	—	—
(5) Bacteriological examination of Smears:				
(a) Gonococci ..	22	—	22	
(b) Lepra Bacilli ..	1	—	1	
(c) Other Bacteria ..	10	—	10	
(d) Negative ..	10	1	11	
	Total ..	43	1	44

APPENDIX VI

TABLE SHOWING THE RESULTS OF SPLEEN AND STOOL EXAMINATION OF SCHOOL CHILDREN

PLACE	Number examined	Palpable Spleen	Spleen Rate %	Number of Schools examined	Ascaris	Infection Rate %	Ankylostoma	Infection Rate %
Brunei	428	8	1.8	445	272	62.7	2	.47
Barakas	42	7	16.6	48	36	85.7	...	...
Gadong	21	1	4.7	24	10	47.6	1	4.7
Kelanas	21	2	9.5	24	13	61.9	...	...
Sengkurong	16	1	6.2	24	14	87.5	...	...
Muara	47	12	25.5	60	29	61.7	...	...
Labu	63	1	1.59	...	...	...	...	...
Bangar	28	...	...	29	12	42.8	...	...
Tutong	45	4	8.8	85	29	64.4	...	...
Tanjong Maya	51	2	3.9	52	21	41.2	...	...
Lubok Pulau	21	...	...	23	14	66.6	2	9.5
Tumpuan Ugas	23	1	4.3	35	20	86.9	...	..
Belait	94	...	...	120	32	25.0	...	...

APPENDIX VII

ANNUAL RETURN OF SICK ADMITTED TO GOVERNMENT HOSPITALS,
BRUNEI

TABLE 1

BRUNEI

Class	Specific Disease	Remained	Admitted	Total	Discharged	Absconded	Died	Remaining
Infectious Disease	Malaria Fever S.T.	9	9	8	1	...	...	...
"	Malaria Fever B.T.	10	10	10	...	...	...	...
"	Malaria Fever Quartan	1	1	2	2	...	...	...
"	Malarial Cachexia ...	16	16	16	...	...	...	...
"	Malaria Fever Unclass.	2	2	2	...	...	...	...
"	Malaria Fever Double-Infection	1	1	1	...	...	...	...
"	Typhoid Fever	4	4	3	1	...	1	...
"	Measles	3	3	3	...	...	...	...
"	Leprosy	1	1	...	...	...	1	...
"	Influenza	14	14	14	...	...	...	...
"	Yaws Tertiary	1	1	1	...	...	...	...
General Disease	Beri Beri	2	20	22	18	...	3	1
"	Goitre	1	1	1	...	...	...	...
"	Rheumatic Fever	2	2	2	...	...	...	...
"	Tuberculous Adenitis	1	1	1	...	...	...	...
"	Avitaminosis	1	1	1	...	...	...	...
"	Lymphangitis	1	1	1	...	...	...	...
"	Myalgia	1	1	1	...	...	...	...
Nervous System	Opium Habit	4	4	4	...	...	...	...
"	Epidemic Neuritis	8	8	8	...	...	...	...
"	Neurasthenia	1	1	1	...	...	...	...
"	Melancholia	2	2	2	...	...	...	...
Circulatory System	Cerebral Thrombosis	1	...	1	1	...	...	...
"	Phlebitis	1	1	1	...	...	...	...
"	Valvular Disease of Heart	2	2	1	...	...	1	...
Respiratory System	Bronchitis	1	1	1	...	...	...	...
"	Hæmoptysis	1	1	1	...	...	...	...
"	Pneumonia	2	2	1	...	1	...	...
"	Pleuro-Pneumonia	1	1	...	...	1	...	...
"	Lobar Pneumonia	1	1	1	...	...	...	...
"	Broncho Pneumonia	1	1	1	...	...	...	...
"	Pulmonary Tuberculosis	4	5	5	...	...	...	...
"	Pleurisy	1	1	2	2	...	...	...
Helminthic Infection	Ascariasis	19	19	19	...	...	...	...
"	Ankylostomiasis	4	4	4	...	...	...	...
Digestive System	Constipation	2	2	2	...	...	...	...
"	Enteritis	1	1	1	...	...	...	...
"	Dysentery Amœbic	1	1	1	...	...	...	...
"	Dysentery Bacillary	2	2	1	...	1	...	...
"	Cholecystitis	1	1	1	...	...	...	...
"	Dyspepsia	2	2	2	...	...	...	...
"	Hæmorrhoids	3	3	2	...	...	1	...
"	Peritonitis	1	1	1	...	...	...	...
"	Pelvic Peritonitis	1	1	1	...	...	...	...
	<i>Carried forward</i>	7	155	162	150	...	8	4

APPENDIX VII—continued

ANNUAL RETURN OF SICK ADMITTED TO GOVERNMENT HOSPITALS,
BRUNEI—continued

TABLE 1

BRUNEI

Class	Specific Disease	Remained	Admitted	Total	Discharged	Absconded	Died	Remaining
Digestive System— <i>Contd.</i>	<i>Brought forward</i> ...	7	155	162	150	...	8	4
"	Gastric Ulcer ...	2	2	1	...	...	...	1
"	Cirrhosis of Liver ...	1	1	1	...	...	...	...
"	Gastro Enteritis ...	1	1	1	1	...	...	...
"	Carcinoma of Stomach	1	1	1	...	...	1	...
Gen: Urin: System	Nephritis ...	1	2	3	2	1	...	...
"	Cystitis ...	2	2	2	2	...	...	...
"	Pyelo Nephritis ...	1	...	1	1	...	...	...
"	Peri Nephritis ...	...	1	1	1	...	...	...
"	Peri Urethritis (Gonorrhœa) ...	...	1	1	...	...	...	1
"	Stone in Bladder ...	2	2	2	2	...	...	...
"	Hydrocele ...	1	1	1	1	...	...	...
"	Intra Peritoneal rupture of the bladder ...	1	1	1	1	...	...	...
"	Prostatitis ...	1	1	1	1	...	...	...
"	Prostatic Abscess ...	1	1	1	1	...	...	...
Venereal Disease	Gonorrhœa ...	6	6	6	6	...	...	...
"	Gonorrhœal Conjunctivitis	1	1	1	1	...	...	...
Bones and Joints	Tuberculous Knee joints ...	1	1	2	1	...	...	1
"	Osteomyelitis ...	2	2	2	2	...	...	...
"	Osteo arthritis ...	1	1	1	1	...	...	...
Violence (all forms)	Wounds ...	14	14	14	14	...	...	...
"	Foreign body in foot ...	1	1	1	1	...	...	...
"	Perforating injury to eye ...	1	1	1	1	...	...	...
"	Sprain ...	3	3	3	3	...	...	...
"	Fracture base of skull ...	1	1	1	1	...	...	...
"	Fracture simple ...	1	1	1	1	...	...	...
"	Contusion ...	2	2	2	2	...	...	...
"	Burn ...	2	2	2	2	...	...	...
Ear, Eye, Nose and Throat	Blepharitis cum Trichiasis ...	1	...	1	1	...	...	...
"	Blepharitis ...	2	2	2	2	...	...	...
"	Trachoma ...	1	1	2	2	...	...	...
"	Toxic Amblyopia ...	1	...	1	1	...	...	...
"	Pterygium ...	4	4	4	4	...	...	...
"	Conjunctivitis ...	6	6	6	6	...	...	...
"	Irido-dialysis cum Hyphemia ...	1	1	1	1	...	...	...
"	Corneal ulcer ...	6	6	6	6	...	...	...
"	Chronic Iritis ...	1	1	1	1	...	...	...
"	Cataract ...	1	1	1	1	...	...	...
"	Otitis Media ...	2	2	2	2	...	...	...
"	Mastoiditis ...	3	3	3	3	...	...	...
"	Tonsillitis ...	3	3	3	2	1	...	...
	<i>Carried forward</i> ...	13	238	251	233	2	9	7

APPENDIX VII—continued

ANNUAL RETURN OF SICK ADMITTED TO GOVERNMENT HOSPITALS,
BRUNEI—continued

TABLE 1		BRUNEI		Remained	Admitted	Total	Discharged	Absconded	Died	Remaining	
Class	Specific Disease										
			<i>Brought forward</i>	...	13	238	251	233	2	9	7
Skin & Cell: Tissue	Abscess	...	...	...	11	11	9	1	...	...	1
"	Boil	...	...	...	1	1	1	1	...	...	...
"	Eczema	...	...	...	2	2	2	2	...	...	...
"	Dermoid Cyst	...	...	...	2	2	2	2	...	...	...
"	Sebaceous Cyst	...	...	...	1	1	1	1	...	...	...
"	Tinea Imbricata	...	...	1	13	14	14	14	...	...	...
"	Ulcer	...	...	...	3	3	3	3	...	...	...
"	Urticaria	...	...	...	1	1	1	1	...	...	...
"	Abdominal Sinus	...	...	...	1	1	1	1	...	...	...
Disease of Women	Ac. P.P. Haemorrhage	...	1	...	1	1	1	...	...	...	...
"	Ovarian Cyst	...	1	...	1	1	1	1	...	...	...
"	Rt. Tubal Pregnancy cum Tubal abortion	...	...	...	1	1	1	1	...	...	...
Undefined Disease	Senility	...	...	1	1	1	1	...	...	...	...
"	Observation	...	...	1	5	6	6	6	...	...	...
Dental Disease	Alveolar Abscess	...	...	...	4	4	4	4	...	...	...
"	Tooth caries	...	...	...	3	3	3	3	...	...	...
	Total	...	17	287	304	284	3	9	9	8	

APPENDIX VII—continued

TABLE 2		TUTONG		Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
Class	Specific Disease										
Infectious Disease	Malaria Fever (Unclas)	...	...	3	3	3	3	...	...	...	...
	Malaria Fever Quartan	...	...	6	6	6	6	...	...	...	...
	Malaria Fever B. T.	...	...	2	2	2	2	...	...	...	...
	Malarial Cachexia	...	...	4	4	4	4	...	...	...	...
	Influenza	...	...	2	2	2	2	...	...	...	...
	Measles	...	...	1	1	1	1	...	...	...	...
	Yaws	...	...	10	10	10	10	...	...	...	...
General Disease	Beri-Beri	...	...	3	3	3	3	...	...	...	...
	Rheumatism	...	...	2	2	2	2	...	...	...	...
	Lumbago	...	...	1	1	1	1	...	...	...	...
	Goitre	...	...	1	1	1	1	...	...	...	...
Nervous System	Neuralgia	...	...	1	1	1	1	...	...	...	...
	Neuritis	...	...	1	1	1	1	...	...	...	...
Ear, Eye, Nose and Throat	Otitis Externa	...	...	1	1	1	1	...	...	...	...
	Blepharitis	...	...	1	1	1	1	...	...	...	...
	Trachoma	...	...	1	1	1	1	...	...	...	...
Respiratory System	Bronchitis	...	...	3	3	3	3	...	...	...	...
	Asthma	...	...	2	2	2	2	...	...	...	...
	P. Tuberculosis	...	...	2	2	2	1	1	...	...	...
Digestive System	Dyspepsia	...	...	2	2	2	2	...	...	...	...
	Ascariasis	...	...	1	1	1	1	...	...	...	...
	Ankylostomiasis and Chronic Malaria	...	...	1	1	1	...	1	...	...	...
Bones and Joints	Septic Joints	...	...	1	1	1	1	...	...	...	...
	Fracture	...	...	1	1	1	1	...	...	...	...
	Arthritis	...	...	2	2	2	2	...	...	...	...
	Osteo Arthritis	...	...	1	1	1	...	1	...	...	...
Gent. Urin. System	Perinephritis	...	...	1	1	1	...	1	...	...	...
Skin and Cell. Tiss.	Ulcer	...	...	1	1	1	1	...	...	...	...
	Tinea Imbricata	...	...	7	7	7	7	...	...	...	...
	Abscess	...	...	1	1	1	1	...	...	...	...
	Dermoid Cyst	...	...	1	1	1	1	...	...	...	...
External Causes	Wound	...	...	8	8	8	8	...	...	...	...
	Injury to eye	...	...	1	1	1	1	...	...	...	...
	Stung by fish	...	...	1	1	1	1	...	...	...	...
	Sprain	...	...	1	1	1	1	...	...	...	...
				78	78	74	4	...	...	...	...
TABLE 3		TEMBURONG									
General Disease	...	Beri-Beri	...	...	2	2	2	...	...	...	...
Respiratory System	Asthma	...	...	2	2	2	2	...	...	...	...
	Pleurisy	...	...	1	1	1	1	...	...	...	...
Genito. Urin. System	Nephritis	...	...	2	2	2	2	...	...	...	...
Skin and Cell Tissue	Cyst	...	...	1	1	1	1	...	...	...	...
				8	8	8	4	...	...	...	...

APPENDIX VIII

RETURN OF OPERATIONS PERFORMED DURING 1934

		<i>Brunei</i>	<i>Temburong</i>
A.—GENERAL:			
Suture of wounds ..	..	36	8
Removal of Cysts, etc. ..	..	11	—
Incision of Suppuration ..	..	30	8
Removal of Foreign bodies ..	..	8	1
Appendicectomy ..	..	1	—
For Hæmorrhoids ..	..	1	—
For Hydrocele ..	..	1	—
Peritoneotomy ..	..	1	—
Intra-Peritoneal rupture of the bladder ..	..	1	—
Chronic Osteomyritis ..	..	2	—
Empyema ..	..	1	—
Circumcision ..	..	1	—
Removal of Fibroma ..	..	1	—
Peri-Arterial Sympathectomy ..	..	1	—
Cystotomy for stone ..	..	1	—
Thyroidectomy ..	..	1	—
Abdominal Sinus (curettage) ..	..	1	—
Glands of neck ..	..	1	—
Cystoscopy ..	..	7	—
Sigmoidoscopy ..	..	6	—
B.—SPECIAL:			
(1) <i>Eye</i> —			
For Blepharitis ..	..	1	—
For Pterygium ..	..	5	—
Removal of Foreign bodies ..	..	1	—
Extraction of cataract ..	..	1	—
Iridectomy ..	..	2	—
(2) <i>Ear, Nose and Throat</i> —			
Radical Mastoid ..	..	1	—
Incision of mastoid abscess (mastoiditis) ..	..	2	—
Tonsillectomy ..	..	3	—
(3) <i>Gynaecological</i> —			
Uterine Curettage ..	..	1	—
Tubal pregnancy and Tubal abortion ..	1		—
(4) <i>Dental</i> —			
Extractions ..	..	142	—
Pyorrheal abscess ..	..	2	—
	Total ..	275	17

APPENDIX IX

ANNUAL RETURN OF OUT-PATIENTS BRUNEI GOVERNMENT HOSPITALS

<i>Disease</i>	<i>Brunei</i>	<i>Tutong</i>	<i>Temburong</i>	<i>Total</i>
Infectious Disease:				
(a) Malaria (all forms) ..	313	358	141	812
(b) Measles ..	16	127	36	179
(c) Yaws ..	32	52	42	126
(d) Leprosy ..	2	—	—	2
(e) Dengue ..	1	—	—	1
(f) Dysentery—				
(1) Bacillary ..	26	5	9	40
(g) Pneumonia (all forms)	9	5	2	16
(h) Tuberculosis—				
(1) Pulmonary ..	31	7	2	40
(2) Other ..	3	—	1	4
Venereal Disease:				
(a) Gonorrhœa (all forms)	17	—	—	17
(b) Syphilis (all forms) ..	2	—	—	2
Helminthic Infection:				
(a) Ascariasis ..	534	364	90	988
(b) Ankylostomiasis ..	2	1	2	5
Respiratory Diseases ..	735	394	170	1,299
Circulatory Diseases:				
(a) Valvular Disease of Heart	1	—	—	1
(b) Other ..	5	—	1	6
Gastro-Intestinal Disease:				
(a) Duodenal ulcer ..	15	—	—	15
(b) Other ..	861	504	217	1,582
Genito-Urinary (non-venereal)	38	16	14	68
Diseases of Women:				
(a) Amenorrhœa ..	1	2	—	3
(b) Dysmenorrhœa ..	10	4	1	15
(c) Abortion ..	3	—	2	5
(d) Other ..	11	4	8	23
Violence (all forms) ..	809	351	109	1,269
Diseases of Skin, etc., etc. ..	2,334	1,340	915	4,589
Total ..	<u>5,811</u>	<u>3,534</u>	<u>1,762</u>	<u>11,107</u>

APPENDIX X

METEOROLOGY

Table 1 mean room temperature at Brunei and Temburong Hospitals

Month	BRUNEI			TEMBURONG		
	Maximum	Minimum	Range	Maximum	Minimum	Range
January ...	86.00	75.74	10.26			
February ...	86.29	75.82	10.47			
March ...	83.93	75.90	8.03	No records		
April ...	85.06	76.50	8.56			
May ...	86.61	76.74	9.87			
June ...	88.90	76.60	12.30	84.93	73.13	11.80
July ...	86.03	76.00	10.03	87.22	74.54	12.68
August ...	85.26	76.26	9.00	86.12	74.22	11.90
September ...	86.01	76.01	10.00	87.33	74.43	12.90
October ...	84.81	76.01	8.80	86.12	74.22	11.90
November ...	84.43	76.13	8.30	85.63	77.86	7.77
December ...	83.00	75.68	7.32	85.32	73.58	11.74
Mean ...	85.53	76.12	9.41	86.09	74.57	6.72

Table 2 monthly rain-fall at nine Stations

Month	BRUNEI DISTRICT				TEMBURONG DISTRICT				Belait B.M.P.	Belait Hos.
	Govt. Hos. Brunei town	Subok	Gadong	Kumbang Pasang	Labu	Biang	Batu Apoi			
January ...	23.36	29.30	21.17	24.14	50.22	29.07	22.90	16.87	16.58	
February ...	16.34	16.04	18.16	17.80	18.10	16.51	22.08	14.35	14.35	
March ...	16.95	13.22	23.17	26.82	24.12	14.05	20.09	14.04	14.03	
April ...	7.23	6.26	16.00	10.76	23.81	17.49	14.05	5.21	5.53	
May ...	5.38	4.62	6.22	15.90	11.32	7.24	4.36	4.14	4.45	
June ...	8.58	9.84	10.68	14.51	22.98	19.94	19.74	14.99	15.73	
July ...	7.42	7.45	6.02	8.00	14.84	10.91	5.50	7.65	7.66	
August ...	10.08	11.55	5.62	9.47	11.59	16.27	2.25	5.82	5.86	
September ...	9.49	10.78	8.13	9.72	13.97	8.50	1.96	7.29	7.27	
October ...	14.68	16.19	17.60	19.41	19.60	25.96	8.59	14.12	14.47	
November ...	18.01	20.47	21.93	25.79	22.95	52.96	16.72	12.69	12.74	
December ...	13.70	16.59	21.16	19.85	15.43	16.69	9.98	16.17	15.73	
Total ...	151.72	162.31	175.86	192.17	248.93	235.20	148.33	133.34	134.40	

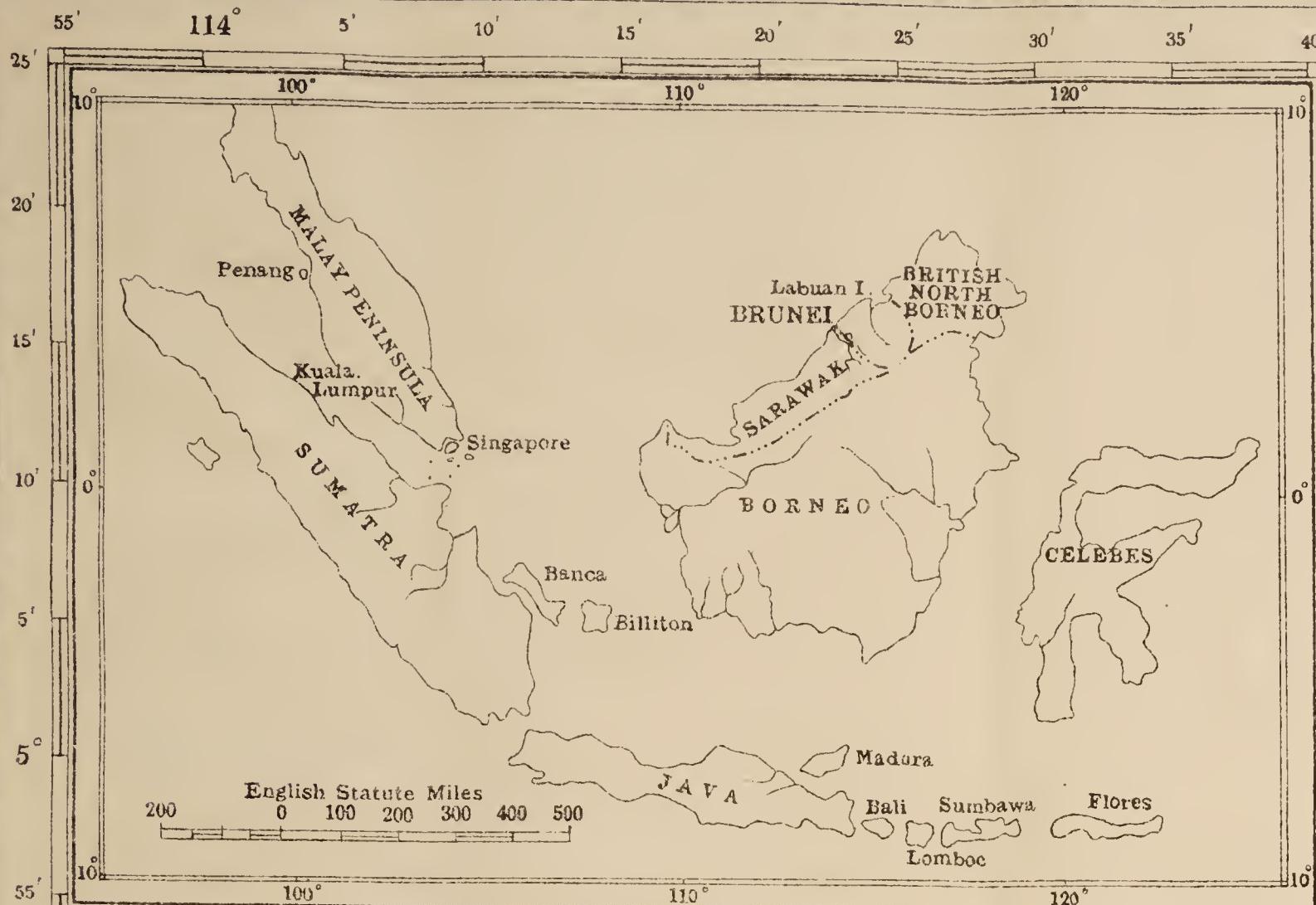


16 SEPT. 1935

SKETCH MAP OF THE STATE OF BRUNEI

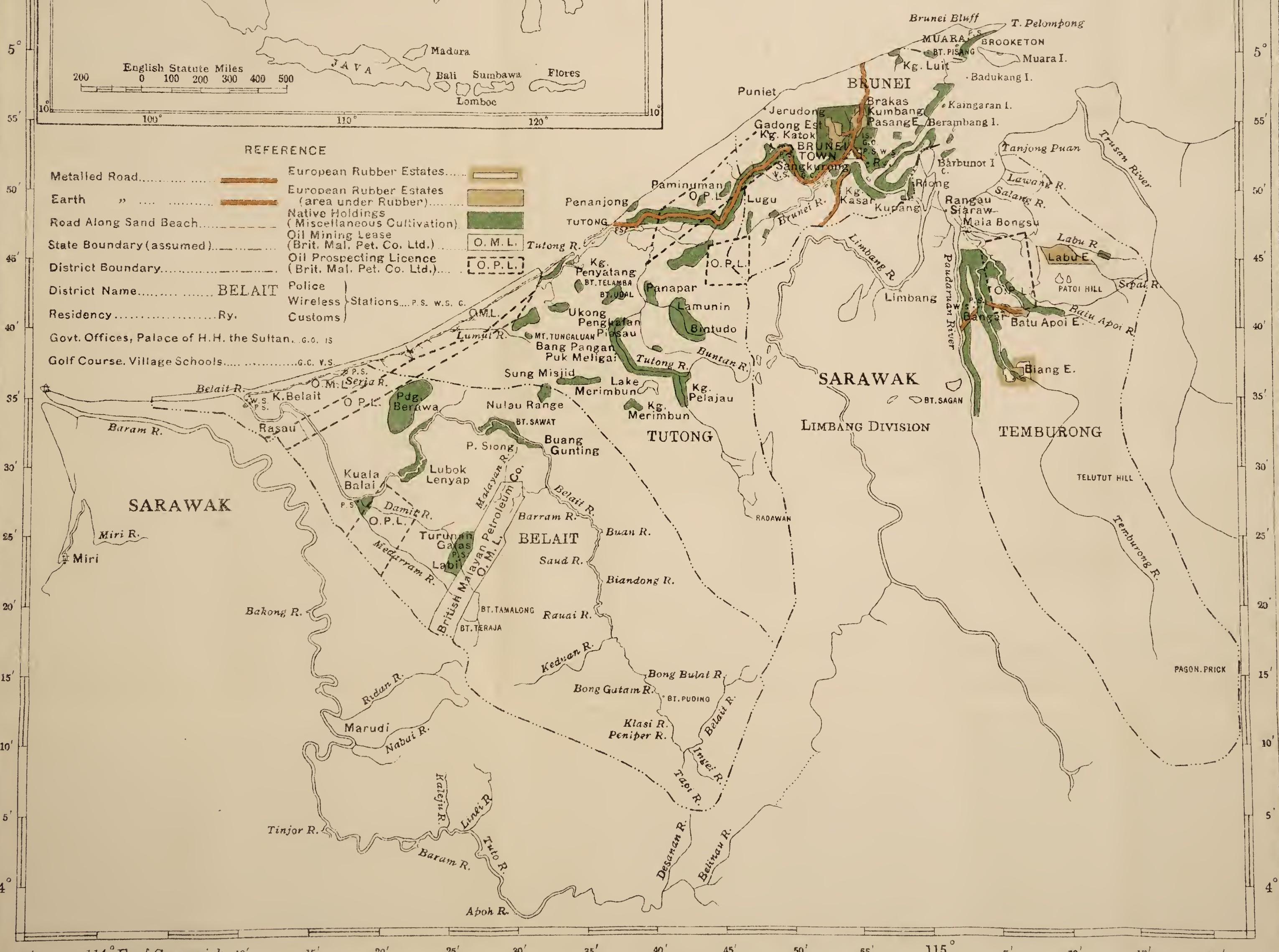
Scale 12 Miles to 1 Inch

Miles 12 6 0 12 24 Miles



REFERENCE

- Metalled Road.....
- European Rubber Estates.....
- Earth ".....
- Road Along Sand Beach.....
- Native Holdings (Miscellaneous Cultivation).....
- Oil Mining Lease (Brit. Mal. Pet. Co. Ltd.).....
- Oil Prospecting Licence (Brit. Mal. Pet. Co. Ltd.).....
- District Boundary.....
- District Name..... BELAIT
- Police Wireless Stations... P.S. W.S. C.
- Residency..... Ry.
- Govt. Offices, Palace of H.H. the Sultan..... G.O. IS
- Golf Course, Village Schools..... G.C. V.S.



55' 114° E. of Greenwich 10' 15' 20' 25' 30' 35' 40' 45' 50' 55' 115° 5' 10' 15' 20' 25'

